

MAY 14 2007

200315613-1

10/673,345

REMARKS

This is a full and timely response to the non-final Official Action mailed February 14, 2007. Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

Claim Status:

Under the imposition of a previous Restriction Requirement, claims 17-28 were withdrawn from consideration. To expedite the prosecution of this application, withdrawn claims 17-28 have been cancelled by the present paper. The withdrawn claims are cancelled without prejudice or disclaimer. Applicant reserves the right to file any number of continuation or divisional applications to the withdrawn claims or to any other subject matter described in the present application.

By the forgoing amendment, the specification and various claims have been amended. Additionally, new claims 29-36 have been added. Thus, claims 1-16 and 29-36 are currently pending for further action.

Specification:

The outstanding Office Action correctly noted that the Application Number of the application to which priority is claimed was given incorrectly in the specification. However, the date of filing and application title were given correctly.

Consequently, by the present paper, the application number has been corrected and the current status of the parent application as an allowed and issued U.S. patent has been noted. Therefore, following entry of this amendment, the objection to the specification should be reconsidered and withdrawn.

200315613-1

10/673,345

Prior Art:

Claims 1-6 were rejected as anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 6,140,737 to Boie ("Boie"). For at least the following reasons, this rejection is respectfully traversed.

Claim 1 recites:

A method of driving a parallel-plate variable micro-electromechanical capacitor, comprising:

establishing a first charge differential across a first and a second conductive plates of said variable capacitor wherein said first and second conductive plates are biased to a relative position and separated by a variable gap distance, and wherein said first charge differential causes relative movement between said conductive plates against said bias to narrow said variable gap distance;

isolating said first and second plates for a first duration; and

decreasing said charge differential to a final charge differential being less than said first charge differential and wherein said second charge differential also causes attraction between said conductive plates against said bias and corresponds to a second value of said variable gap distance which is smaller than said biased relative position.

(Emphasis added).

Support for the amendments to claims 1 and 8 can be found in the originally filed specification at, for example, paragraph 0049.

In contrast, Boie fails to teach or suggest this subject matter. As noted in the Office Action, Boie teaches "an electrostatic force between the stationary and movable parts [] to move the movable part from a rest position to the activated position." (Boie, abstract).

Consequently, Boie only applies one charge differential to move from the rest position to the activated position. (Boie, col. 2, line 62 to col. 3, line, 2).

Boie does not teach or suggest a method like that claimed that includes decreasing the charge differential applied to a lesser charge differential that still causes an attraction between the parts and is less than the initially applied charged differential. Thus, Boie does not teach or suggest "decreasing said charge differential to a final charge differential being less than

200315613-1

10/673,345

said first charge differential and wherein said second charge differential also causes attraction between said conductive plates against said bias and corresponds to a second value of said variable gap distance which is smaller than said biased relative position."

"A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. For at least these reasons, the rejection based on Boie of claim 1 and its dependent claims should be reconsidered and withdrawn.

Additionally, various dependent claims of the application recite subject matter that is further patentable over the cited prior art. Specific, non-exclusive examples follow.

Claim 3 recites "wherein isolating said first and second plates for said second duration allows said first and second plates to mechanically settle to said second value of said variable gap distance." In contrast, Boie does not teach or suggest allowing plates to mechanically settle to a second value of a variable gap distance which is not a rest position to which the plates are biased.

Claim 4 recites "wherein establishing said first charge differential comprises coupling said first conductive plates to a reference voltage source and coupling said second conductive plate to a clear voltage." Boie does not appear to teach or suggest coupling first and second plates separately and respectively to a reference voltage source and a clear voltage.

Claim 6 recites "wherein said first charge differential causes an initial attractive force between said first and second conductive plates that is larger than a second attractive force corresponding to said second value of said variable gap distance." As demonstrated above,

200315613-1

10/673,345

Boie does not teach or suggest a method in which two different charge differentials are used that both produce different attractive forces between conductive plates.

For at least these additional reasons, the rejection of these dependent claims should be further reconsidered and withdrawn.

Claims 7-16 were rejected as being unpatentable under 35 U.S.C. § 103(a) in view of Boie taken alone. For at least the following reasons, this rejection is also respectfully traversed.

Claim 8 recites:

A method of driving a diffraction-based light modulation device (DLD), comprising:

establishing a preliminary known charge state with respect to a first and a second conductive plate of a variable capacitor wherein said first and second conductive plates are separated by a variable gap distance;

establishing a first charge differential across said first and second conductive plates to force said first and second conductive plates toward each other;

isolating said first and second conductive plates for a first duration;

decreasing said charge differential to a second charge differential that also forces said first and second conductive plates toward each other, but said second charge differential being less than said first charge differential and wherein said second charge differential corresponds to a second value of said variable gap distance; and

isolating said variable capacitor for a second duration to allow said first and second plates to settle to said second value of said variable gap distance.

(Emphasis added).

As noted above, support for the amendments to claims 1 and 8 can be found in the originally filed specification at, for example, paragraph 0049.

In contrast to claim 8, Boie does not teach or suggest a method that includes establishing a charge differential and then “decreasing said charge differential to a second charge differential that also forces said first and second conductive plates toward each other,

200315613-1

10/673,345

but said second charge differential being less than said first charge differential and wherein said second charge differential corresponds to a second value of said variable gap distance."

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). For at least this reason, the rejection based on Boie of claims 8 and its dependent claims should be reconsidered and withdrawn.

Additionally, various dependent claims of the application recite subject matter that is further patentable over the cited prior art. Specific, non-exclusive examples follow.

Claim 12 recites "wherein establishing said first charge differential comprises coupling said first conductive plate to an overdriven reference voltage source." In contrast, Boie does not teach or suggest the concept of an overdriven reference voltage source as disclosed and claimed by Applicant.

Claim 14 recites "wherein removing said selected amount of charge comprises coupling said first conductive plate to an overdrive compensation voltage for a determined period of time." Boie does not teach or suggest this subject matter of an overdrive compensation voltage.

For at least these additional reasons, the rejection of these dependent claims should be further reconsidered and withdrawn.

MAY 14 2007

200315613-1

10/673,345

Conclusion:

The newly added claims are thought to be patentable over the prior art of record for at least the same reasons given above with respect to the original independent claims.

Therefore, examination and allowance of the newly added claims is respectfully requested.

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. If the Examiner has any comments or suggestions which could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,

DATE: May 14, 2007



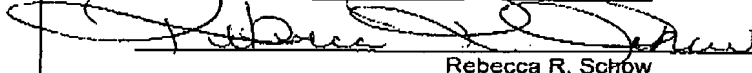
Steven L. Nichols
Registration No. 40,326

Steven L. Nichols, Esq.
Managing Partner, Utah Office
Rader Fishman & Grauer PLLC
River Park Corporate Center One
10653 S. River Front Parkway, Suite 150
South Jordan, Utah 84095

(801) 572-8066
(801) 572-7666 (fax)

CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being transmitted to the Patent and Trademark Office facsimile number 571-273-8300 on May 14, 2007. Number of Pages: 17


Rebecca R. Schow